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ABSTRACT

Teacher use of individualized instruction in physical education was measured by a Level-of-Use interview developed to describe and systematically account for the way that behaviors of individuals change as they grow in their use of an innovation. This technique was developed as a tool to help trainers identify needs of teachers involved in new programs. Use of an innovation by teachers ranges from no involvement, through orientation, mechanical use, stabilization and refinement of the innovation, to creative acceptance. Testing of individualized instruction methods before and after the inservice training period provided information on how teachers change behaviorally through gradual adoption of an innovation. (JD)

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Levels of Use of Individualized Instruction in the Physical Education Setting

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Abstract

Teacher use of individualized instruction in physical education was measured by the Level of Use interview developed at the University of Texas Research and Development Center. Data were collected immediately before and just following a replicable, seven-week, client-centered, field-based inservice training program. A case study approach was used to report group and selected individual Levels of Use. The results of this study indicated that while change is a difficult and time-consuming process, it can be facilitated by trainers focusing on individual teacher's needs.

Levels of Use of Individualized Instruction in the Physical Education Setting

The requirements of the Education for All Handicapped Children Act of 1975 include broad educational innovations which have great impact on educators. These innovations include such things as education in the least restrictive environment and individualized educational programming. The law has particular impact on physical educators due to the specification of physical education as a component of the direct educational services provided for every handicapped student. In the law, physical education is defined as the development of physical and motor fitness; fundamental motor skills and patterns; and skills in aquatics, dance, and individual and group games and sports (including intramural and lifetime sports).

The implementation of the extensive educational changes required by law is difficult, particularly if we accept present practice in teacher education and in the public schools (Meyen, 1978). In his article, Meyen (1978) states

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that inservice training has had a history of inadequacies with regard to teacher needs in today's schools. He argues that practicing teachers should be involved in determining inservice needs and delivering training. In any case, the teacher trainer, whether a personality from an institution of higher education, a practicing teacher, an administrator, or a school district consultant, must be aware of the inservice trainees' needs in order to best facilitate change with regard to innovation implementation.

The staff of the Procedures for Adopting Education Innovations Project at the University of Texas Research and Development Center for Teacher Education proposed a Concerns Based Adoption Model based on the following key assumptions with regard to change:

1. Change is a process, not an event.
2. The individual must be the primary focus of interventions.
3. Change, itself, is a highly personal experience.
4. A full description of the innovation in operation is vital.
5. There are identifiable stages and levels of individuals' experience during change.
6. Inservice training is best facilitated by a client-centered, diagnostic/prescriptive model.
7. The change facilitator must work in adaptive/systematic ways (Hall, Note 1).

A Level of Use interview technique was developed at the Research and Development Center in order to behaviorally describe and systematically account for the way that behaviors of individuals change as they grow in their use of an innovation. This technique was developed

as a tool to help trainers identify teacher needs with regard to new programs (innovations).

The present study was conducted during the first year of a Bureau of Education for the Handicapped Personnel Preparation Grant for regular education inservice in physical education for the handicapped. The Level of Use Interview was used to document teacher behaviors with regard to individualized instruction. The purpose of this article is to describe the implementation of the Level of Use interview as a tool for systematically determining the needs of inservice teachers. Preliminary findings are reported using a case study approach to show group and selected individual Levels of Use before and after training.

Method

Subjects

Level of Use data for eight regular, elementary physical education teachers are reported in this paper. These eight teachers were from central Texas, and received similar inservice training programs which focused on individualizing instruction.

Instrumentation

Teacher behaviors related to individualized instruction were measured using the Level of Use Interview developed at The University of Texas Research and Development Center for Teacher Education. The function of this "focused" interview technique is to solicit sufficient information from individuals involved in innovation adoption in order to place them at a

Level of Use with respect to that innovation. In this study, the innovation was that of individualizing instruction in the physical education setting. By simply changing the focus of the questions, the interview can be used for any innovation, thereby making the Level of Use Interview generic in nature. The interview is tape recorded so that it can be rated by independent Level of Use coders, if desired. The Level of Use Interview and procedures for its use are described in detail in the Interview Manual (Loucks, Newlove, and Hall, 1975). A description of each Level of Use is found in Table 1.

Insert Table 1 here

A large-scale research effort by the staff at The University of Texas Research and Development Center, employing the Level of Use Interview, resulted in interrater reliabilities from 0.87 to 0.96. Percentage agreement on the overall Level of Use ranged between 60% and 70%. Validity of the Level of Use Interview procedure was established using an ethnographic methodology. A correlation coefficient of 0.98 was established, indicating that the focused interview rating was consistent with a full day of direct observation of the teacher's use/nonuse of the innovation.

Table 1. Levels of Use of the Innovation

	LEVELS OF USE	DEFINITION OF USE
non-user	0 NONUSE	State in which the user has little or no knowledge of the innovation, no involvement with the innovation, and is doing nothing toward becoming involved.
non-user	I ORIENTATION	State in which the user has recently acquired or is acquiring information about the innovation and/or has recently explored or is exploring its value orientation and its demands upon user and user system.
non-user	II PREPARATION	State in which the user is preparing for first use of the innovation.
user	III MECHANICAL USE	State in which the user focuses most effort on the short-term, day-to-day use of the innovation with little time for reflection. Changes in use are made more to meet user needs than client needs. The user is primarily engaged in a stepwise attempt to master the tasks required to use the innovation, often resulting in disjointed and superficial use.
user	IVA ROUTINE	State in which use of the innovation is stabilized. Few if any changes are being made in ongoing use. Little preparation or thought is being given to improving innovation use or its consequences.
user	IVB REFINEMENT	State in which the user varies the use of the innovation to increase the impact on clients within immediate sphere of influence. Variations are based on knowledge of both short- and long-term consequences for clients.
user	V INTEGRATION	State in which the user is combining own efforts to use the innovation with related activities of colleagues to achieve a collective impact on clients within their common sphere of influence.
user	VI RENEWAL	State in which the user reevaluates the quality of use of the innovation, seeks major modifications of or alternatives to present innovation to achieve increased impact on clients, examines new developments in the field, and explores new goals for self and the system.

Excerpted from The LoU Chart
Procedures for Adopting Educational Innovations Project
Research and Development Center for Teacher Education
The University of Texas at Austin

Training Program

The purpose of the inservice program was to train teachers to individualize instruction in physical education as specified by P.L. 94-142. The content of the program included:

-overview of P.L. 94-142

-psychomotor assessment

-individual educational programming in physical education

-managing individualized instruction in the least restrictive environment in physical education

The Region XIII Educational Service Center and The Department of Physical and Health Education at The University of Texas through a Bureau of Education for the Handicapped grant (Personnel Preparation Funds), provided the financing for this training.

The training program consisted of seven formal 2-½ hour group sessions and four individual consultant visits during a seven-week block. The program materials were replicable and were adapted from the I CAN training modules developed at the Field Research Unit in Physical Education for the Handicapped at Michigan State University. The same inservice trainer conducted the formal group sessions while three trained consultants conducted the four individual visits.

The Level of Use interview was used to assess individual teacher behaviors with regard to individualizing instruction before and following the seven-week training. Therefore, the interviews provided the trainer with diagnostic information related to teacher needs. The group data collected using Level of Use also provided

the inservice trainer with evaluation information about the effect of the training program on teacher use of individualized instruction in physical education.

The training activities during the seven weeks focused on the first two phases of the following three phase model:

Phase 1: developing the physical educator's awareness of the implications of Public Law 94-142 in the physical education setting, interest in implementing a quality program, and the awareness of needs assessment at the local education agency level;

Phase 2: developing the physical educator's skill in implementing the individualized process in the least restrictive alternative; and

Phase 3: developing the physical educator's skill as a demonstrator and/or trainer of other teachers.

The inservice program was organized so that it was initiated at the institution for higher education. However, a goal of the program was to develop the skills of public school personnel so they could act as demonstrators and/or trainers of other teachers. Therefore, only certain teachers were targeted for Phase 3 training the initial seven-week training activities which addressed Phases 1 and 2.

Procedures

A pre - post test design was used to determine the effects of the inservice program on teacher's Level of Use of the innovation

of individualized instruction in physical education. Teachers were interviewed prior to and within two weeks following the seven-week training program. These interviews were taped and coded in order to determine Level of Use. The investigator rated the tapes with three reliability checks made by another certified interviewer.

The following criteria were used to classify teachers as users (Level of Use III or above) of individualized instruction:

1. The teacher defined yearly goals and objectives for individual students.
2. The teacher assessed behaviorally defined skills and recorded individual student status.
3. The teacher's instructional activities were based on assessment data.

Teachers who completed the seven-week training at Levels IV A (Routine), IV B (Refinement), or V (Collaboration) were targeted for Phase 3 training which included activities to improve the quality of the teachers' performance as a demonstrator of individualized instruction or a trainer of other teachers.

Results

Table 2 presents the Level of Use ratings for the teachers immediately prior to the seven-week training session. As expected, most of the teachers were non-users of individualized instruction (75.0%) who were at Level of Use 0 (Non-use), I (Orientation), or II (Preparation). Only two teachers (25.0%) were at Level of Use III or above, and could be classified as users.

Insert Table 2 here

The training for the teachers at Levels 0 (Non-use) and I (Orientation) focused on Phase 1 of the model described on the previous page. Therefore, training activities initially addressed developing an awareness of and an interest in individualizing instruction in the physical education setting. Later, the teachers were asked to try some of the skills defined as components of individualized instruction (Phase 2). These included such things as: assessing and recording individual student status and selected physical education skills; defining long-term goals and short-term objectives; designing and managing instructional activities in physical education when children are mainstreamed. The above Phase 2 activities were addressed at the beginning of the seven-week training for the teacher who was at Level of Use II (Preparation) on the pre-training measure.

It is interesting to note that two pre-workshop users were functioning at Level V (Integration). In other words, they were already implementing individualized instruction by combining their efforts to use the program with other colleagues. These integration efforts were being used in order to have a collective impact on students in the physical education classes. The trainers focused their activities on improving and facilitating the collaborative activities of these two teachers. For example, during the seven-week period, meetings were organized for collaborating teachers and other personnel. These sessions

Table 2

Percent of Subjects at Each Level of Use

Pre-Workshop (N = 8)

Level of Use	0	I	II	III	IVA	IVB	V	VI
Subjects %	12.5	50.0	12.5	0	0	0	25.0	0

were designed to facilitate the sharing of ideas and the designing of comprehensive physical education plans. Another intervention focused on the physical educator's role on the multidisciplinary team. Mechanisms for reporting student assessment data from other disciplines (therapy, classroom, etc.) were addressed in this activity. Eliciting input from parents and community professionals was also highlighted.

The post-workshop Level of Use interviews were conducted within two weeks of the end of the seven-week program. These data are reported in Table 3, and indicate that 37.5% (N=3) of the teachers remained non-users of individualized instruction. During their post-workshop interview, these teachers reported a need for acquiring additional information about individualizing instruction before being able to make a decision about using the approach.

Insert Table 3 here

After the workshop, 62.5% (N=5) of the participants were users at Levels IV A (Routine), IV B (Refinement) or V (Integration). All five users were identified as demonstration teachers for individualized physical education. Their names were added to a pool of teachers who serve as models for various innovative approaches. The two Level V (Integration) teachers became potential trainers, targeted for learning additional consulting skills and for presenting workshops for other teachers with an interest in implementing the individualized approach.

Table 3

Percent of Subjects at Each Level of Use

Post-Workshop (N = 8)

Level of Use	0	I	II	III	IVA	IVB	V	VI
Subjects %	12.5	25.0	0	0	25.0	12.5	25.0	0

Implications and Discussion

The use of the Level of Use interview to measure one aspect of innovation adoption provided a great deal of information about the way educators change. The mandate of individualized physical education for all handicapped children requires an adoption model that is based on systematic measurement of teacher behaviors. In this study, the investigator used individual and group Levels of Use to help determine the effectiveness of a seven-week client-centered inservice program designed to train teachers to individualize instruction in the physical education setting. These data also provided the trainers with information to help them personalize the training process for each teacher. Many implications have been suggested from this preliminary study. They include:

1. Change is a process that takes time. While the seven-week inservice program concluded with 5 teachers as users of individualized instruction, the program may not have been of sufficient duration or intensity for the three teachers who remained non-users.
2. Each teacher in the training session responded to change in a different way. These differences provided information to help the trainer personalize the process of adopting the individualized approach.
3. Attendance at a workshop (even one of the intensity described) does not guarantee that an innovation will be implemented. About 37% of teachers attending this workshop did not adopt the innovation.

4. The Level of Use interview provided helpful information for identifying demonstration teachers and future teacher trainers.

Change is a difficult process. The implications of P.L. 94-142 involve massive educational innovations including individualizing instruction. In order to facilitate the process of lasting and meaningful change with regard to this law, inservice trainers must focus their efforts on individual teacher's needs and behaviors. Also, trainers need to follow-up in order to ensure that program effects generalize to real life settings.

Reference Notes

1. Hall, Gene E. Concerns Based Inservice Teacher Training: An Overview of the Concepts, Research and Practices. Austin: Research and Development Center for Teacher Education, The University of Texas, 1978.

2. Loucks, S. F., Newlove, B. W., and Hall, G. E. Measuring Levels of Use of the Innovation: A Manual for Trainers, Interviewers, and Raters. Austin: Research and Development Center for Teacher Education, The University of Texas, 1975.

References

Meyen, Edward L. Inservice implications for implementing P. L. 94-142. Journal of Special Education Technology, 1978, 2, 4-14.